

April 28, 2009

SR-87, MP 224 LANDSLIDE OVERVIEW

- On March 21, 2008 after a series of heavy precipitation events, a landslide in a cut slope buckled an adjacent portion of State Route 87 (SR 87) resulting in a week-long closure of a main highway connecting Phoenix and Payson through the Mazatzal Mountains of central Arizona.
- Immediately after the landslide, the Arizona Department of Transportation and their consultants conducted an initial assessment of the damage and possible causes. The assessment revealed that the failed road cut for the SR 87 alignment passes obliquely through debris of a much larger and older complex translational landslide occurring in weak sedimentary rock prone to failure along claystone bedding planes. The larger slide is approximately one mile long by a half-mile wide.
- Interim measures were implemented to re-stabilize the slope and repair the road, including:
 - The removal of nearly 200,000 cubic yards of landslide debris,
 - Installation of multiple rows of drilled cast-in-place concrete shear piles,
 - Repair and improvement of a damaged underground drain system, and,
 - Construction of a 750 foot-long rock-fill buttress at the base of the shallow slide along the roadway shoulder of southbound SR 87.